

What is claimed is:

1. 1. An electronic purse comprising:
 2. IC card connecting means for connecting an IC card storing electronic money information;
 4. IC card reading and writing means for reading or writing information from or into the IC card connected to said IC card connecting means;
 6. control means for controlling reading and writing of electronic money information in the IC card; and
 8. an external device connecting terminal for sending and receiving electronic money information to and from an external device;
 10. a switching means for making it possible to receive and send electronic money information between said IC card reading and writing means and said external device connecting terminal;
 13. an external device detecting means for detecting a response from the external device connected to said external device connecting terminal; and
 15. wherein when said external device detecting means detects connection of the external device, said control means sets said switching means so that the electronic money information in said IC card can pass between said external device connecting terminal and said IC card reading and writing means, making it possible to send and receive the electronic money information between said external device and said IC card.
1. 2. The electronic purse according to Claim 1, wherein:
 2. said purse is provided with at least two sets of IC card connecting means and IC card reading and writing means, and further comprises a

4 remittance direction selecting means which can select, as a direction of
5 transferring electronic money information, either transfer between the two IC
6 cards or transfer between one IC card and the external device;

7 said control means can set said switching means based on a selection
8 by said remittance direction selecting means; and

9 when said external device detecting means detects connection of the
10 external device, setting of said switching means can be selected, by said
11 remittance direction selecting means, so that the electronic money information
12 of said IC card can pass between said external device connecting terminal and
13 said IC card reading and writing means.

1 3. The electronic purse according to Claim 1, wherein:

2 said purse is provided with at least two sets of IC card connecting
3 means and IC card reading and writing means, and further comprises a
4 remittance direction selecting means which can select, as a direction of
5 transferring electronic money information, either transfer between the two IC
6 cards or transfer between one IC card and the external device, to set said
7 switching means, and a card detecting means for detecting existence or non-
8 existence of respective IC cards corresponding to said IC card connecting means ;
9 and

10 when one connected IC card is detected by said card detecting means,
11 said control means sets said switching means so that said direction of
12 remittance is one for sending and receiving electronic money information
13 between said IC card and the external device.

1 4. The electronic purse according to Claim 1, wherein:

2 said purse is provided with at least two sets of IC card connecting
3 means and IC card reading and writing means, and further comprises a
4 remittance direction selecting means which can select, as a direction of
5 transferring electronic money information, either transfer between the two IC
6 cards or transfer between one IC card and the external device, to set said
7 switching means, and a card detecting means for detecting existence or non-
8 existence of respective IC cards corresponding to said IC card connecting means ;
9 and

10 when two connected IC cards are detected by said card detecting means,
11 said control means sets said switching means so that said direction of
12 remittance is one for sending and receiving electronic money information
13 between said two IC cards.

1 5. The electronic purse according to Claim 1, wherein:

2 said electronic purse further comprises a transaction button for giving
3 instructions for sending and receiving electronic money information to and from
4 said IC card; and

5 said control means detects that said transaction button is operated, and
6 when said external device detecting means detects, that an external device is
7 connected, said control means sets said switching means based on these results
8 of detection, so that electronic money information can be sent and received
9 between said external device and said IC card.

1 6. The electronic purse according to Claim 5, wherein:

2 said purse is provided with at least two sets of IC card connecting
3 means and IC card reading and writing means, and further comprises a

4 remittance direction selecting means which can select, as a direction of
5 transferring electronic money information, either transfer between the two IC
6 cards or transfer between one IC card and the external device;

7 said control means can set said switching means based on a selection
8 by said remittance direction selecting means; and

9 when said external device detecting means detects connection of the
10 external device, setting of said switching means can be selected, by said
11 remittance direction selecting means, so that the electronic money information
12 of said IC card can pass between said external device connecting terminal and
13 said IC card reading and writing means.

1 7. The electronic purse according to Claim 5, wherein:

2 said purse is provided with at least two sets of IC card connecting
3 means and IC card reading and writing means, and further comprises a
4 remittance direction selecting means which can select, as a direction of
5 transferring electronic money information, either transfer between the two IC
6 cards or transfer between one IC card and the external device, to set said
7 switching means, and a card detecting means for detecting existence or non-
8 existence of respective IC cards corresponding to said IC card connecting means;
9 and

10 when one connected IC card is detected by said card detecting means,
11 said control means sets said switching means so that said direction of
12 remittance is one for sending and receiving electronic money information
13 between said IC card and the external device.

1 8. The electronic purse according to Claim 5, wherein:

2 said purse is provided with at least two sets of IC card connecting
3 means and IC card reading and writing means, and further comprises a
4 remittance direction selecting means which can select, as a direction of
5 transferring electronic money information, either transfer between the two IC
6 cards or transfer between one IC card and the external device, to set said
7 switching means, and a card detecting means for detecting existence or non-
8 existence of respective IC cards corresponding to said IC card connecting means ;
9 and

10 when two connected IC cards are detected by said card detecting means,
11 said control means sets said switching means so that said direction of
12 remittance is one for sending and receiving electronic money information
13 between said two IC cards.

1 9. An electronic purse comprising:

2 IC card connecting means for connecting an IC card storing electronic
3 money information;

4 IC card reading and writing means for reading or writing information
5 from or into the IC card connected to said IC card connecting means;

6 control means for controlling reading and writing of electronic money
7 information in the IC card;

8 an external device connecting terminal for sending and receiving
9 electronic money information to and from an external device; and

10 wherein, before sending electronic money information through said
11 external device connecting terminal in response to a request signal inputted
12 through the external device connecting terminal, information regarding a
13 construction of said electronic purse is sent.

1 10. An electronic purse comprising:
2 IC card connecting means for connecting an IC card storing electronic
3 money information;
4 IC card reading and writing means for reading or writing information
5 from or into the IC card connected to said IC card connecting means;
6 control means for controlling reading and writing of electronic money
7 information in the IC card; and
8 an external device connecting terminal for sending and receiving
9 electronic money information to and from an external device;
10 wherein said electronic purse further comprises a storage medium
11 which stores information regarding a construction of the electronic purse, and is
12 provided separately from said control means; and
13 before sending electronic money information through said external
14 device connecting terminal, said information regarding the construction of said
15 electronic purse, which is stored in said storage medium, is sent.

1 11. An electronic purse comprising:
2 IC card connecting means for connecting an IC card storing electronic
3 money information;
4 IC card reading and writing means for reading or writing information
5 from or into the IC card connected to said IC card connecting means;
6 control means for controlling reading and writing of electronic money
7 information in the IC card; and
8 an external device connecting terminal for sending and receiving
9 electronic money information to and from an external device;

10 wherein, said electronic purse further comprises a lump-sum
11 remittance button for giving instructions for lump-sum sending of electronic
12 money information stored in the IC card, and a lump-sum remittance button
13 operation detecting means for detecting an operation signal indicating that this
14 button has been operated; and

15 when the lump-sum remittance button is operated, said control means
16 performs control processing so that all the electronic money information stored
17 in said IC card or a user-set value is sent in a lump sum to the external device
18 connected to said external device connecting terminal.

1 12. An electronic purse comprising:

2 IC card connecting means for connecting an IC card storing electronic
3 money information;

4 IC card reading and writing means for reading or writing information
5 from or into the IC card connected to said IC card connecting means;

6 control means for controlling reading and writing of electronic money
7 information in the IC card; and

8 an external device connecting terminal for sending and receiving
9 electronic money information to and from an external device;

10 wherein, said electronic purse further comprises a lump-sum drawing
11 button for giving instructions for receiving all the electronic money information
12 stored in the external device connected to the external device connecting
13 terminal; and

14 when said lump-sum drawing button is operated, said control means
15 performs control processing so that all the electronic money information which is
16 stored in and received from said external device or a user-set value is received in

17 a lump sum by said IC card through said external device connecting terminal.

1 13. The electronic purse according to Claim 12, wherein:

2 when said lump-sum drawing button is operated, said control means
3 receives a value of the electronic money information stored in said the external
4 device connected to said external device connecting terminal, to display it as a
5 balance on a display unit; and

6 when said lump-sum drawing button is operated once again, said
7 control means performs control processing so that all the electronic money
8 information displayed as the balance is received by said IC card through said
9 external device connecting terminal.

1 14. An electronic purse comprising:

2 IC card connecting means for connecting an IC card storing electronic
3 money information;

4 IC card reading and writing means for reading or writing information
5 from or into the IC card connected to said IC card connecting means;

6 control means for controlling reading and writing of electronic money
7 information in the IC card;

8 an external device connecting terminal for sending and receiving
9 electronic money information to and from an external device;

10 a transaction button for giving instructions for sending and receiving
11 electronic money information to and from said IC card;

12 numerical input means for inputting a value of electronic money
13 information to be handled; and

14 an instruction decision button for inputting decision of instructions;

15 wherein, said electronic purse further comprises a remittance direction
16 detecting means for detecting electronic money information transfer direction
17 data inputted from the external device through the external device connecting
18 terminal, and a transfer direction setting means for setting a direction of
19 transferring electronic money information in relation to said IC card; and

20 when, after operation of said transaction button is detected, said
21 instruction decision button is operated while said numerical input means is not
22 operated, said control means sets said transfer direction setting means in
23 accordance with electronic money information transfer direction data detected
24 by said remittance direction detecting means.

1 15. An electronic purse comprising:

2 IC card connecting means for connecting an IC card storing electronic
3 money information;

4 IC card reading and writing means for reading or writing information
5 from or into the IC card connected to said IC card connecting means;

6 a modem for sending and receiving electronic money information to and
7 from an external device through a communication line;

8 a transaction button for giving instructions for sending and receiving
9 electronic money information to and from the IC card;

10 telephone receiver means for outputting voice information received
11 through said communication line; and

12 line switching means for switching the communication line to the
13 modem or to the telephone receiver means;

14 wherein, said electronic purse further comprises a voice information
15 storage means for storing voice information, and a voice connecting means for

16 supplying the voice information stored in said voice information storage means
17 to said telephone receiver means;

18 when said transaction button is operated, the communication line is
19 connected to the modem while the voice information is supplied to said
20 telephone receiver means; and

21 while electronic money information of said IC card is being sent or
22 received to or from the external device through the modem and the
23 communication line, said voice information such as a piece of music or a
24 message is outputted through said telephone receiver means.

1 16. An electronic purse comprising:

2 IC card connecting means for connecting an IC card storing electronic
3 money information;

4 IC card reading and writing means for reading or writing information
5 from or into the IC card connected to said IC card connecting means;

6 a modem for sending and receiving electronic money information to and
7 from an external device through a communication line;

8 a transaction button for giving instructions for sending and receiving
9 electronic money information to and from the IC card; and

10 a telephone transmitter-receiver means for talking by means of voice
11 information sent and received through the communication line, and a line
12 superposition means for sending and receiving signals of the modem and the
13 telephone transmitter-receiver means in a superposed manner to and from the
14 communication line;

15 wherein when said transaction button is operated, it is made possible to
16 send and receive voice information such as a piece of music or a message

17 through said line superposition means, and to input and output the voice
18 information through said telephone transmitter-receiver means, while electronic
19 money information is sent or received to and from the external device through
20 said line superposition means and said modem.